

CLAIMS

1 1. (previously presented) A portable device comprising:
2 a microprocessor;
3 a non-volatile memory coupled to the microprocessor; and
4 a biometrics-based authentication module coupled to and controlled by the
5 microprocessor, wherein access to the non-volatile memory is granted to a user provided that
6 the biometrics-based authentication module authenticates the user's identity and wherein
7 access to the non-volatile memory is denied to the user otherwise.

1 2. (previously presented) The portable device as recited in Claim 1 wherein the
2 biometrics-based authentication module is a fingerprint authentication module.

1 3. (currently amended) The portable device as recited in Claim 1 further
2 comprising a universal serial bus (USB) ~~connector-plug~~ for coupling the portable device
3 directly to a USB socket of ~~with another~~ USB-compliant device.

1 4. (previously presented) The portable device as recited in Claim 1 wherein the
2 biometrics-based authentication module comprises a biometrics sensor fitted on one surface
3 of the portable device.

1 5. (previously presented) The portable device as recited in Claim 1 wherein the
2 non-volatile memory comprises flash memory.

1 6. (previously presented) The portable device as recited in Claim 1 wherein the
2 microprocessor is configured to provide a bypass mechanism for authentication upon a
3 determination of authentication failure by the biometrics-based authentication module.

1 7. (previously presented) A portable device comprising:

2 a bus;
3 a microprocessor coupled to the bus;
4 a non-volatile memory coupled to the bus; and
5 a biometrics-based authentication module coupled to the bus, wherein under the
6 control of the microprocessor the biometrics-based authentication module is configured to (1)
7 capture a first biometrics marker; (2) store the first biometrics marker in the non-volatile
8 memory; (3) capture a second biometrics marker; and (4) determine whether the second
9 biometrics marker can be authenticated against the first biometrics marker; and wherein the
10 microprocessor is configured to disable access to the non-volatile memory upon a
11 determination of authentication failure by the biometrics-based authentication module.

1 8. (previously presented) The portable device as recited in Claim 7 wherein the
2 biometrics-based authentication module is a fingerprint authentication module.

1 9. (currently amended) The portable device as recited in Claim 7 further
2 comprising a universal serial bus (USB) device controller coupled to the bus and a USB
3 ~~connector plug~~ coupled to the bus, such that the portable device is capable of being coupled
4 directly to a USB socket of and communicating with a host platform via the USB ~~connector~~
5 plug.

1 10. (previously presented) The portable device as recited in Claim 7 wherein the
2 biometrics-based authentication module is structurally integrated with the portable device in a
3 unitary construction and comprises a biometrics sensor being disposed on one surface of the
4 portable device.

1 11. (previously presented) The portable device as recited in Claim 7 wherein the
2 non-volatile memory comprises flash memory.

1 12. (previously presented) The portable device as recited in Claim 7 wherein the
2 biometrics-based authentication module is further configured to encrypt the first biometrics
3 marker before storing the first biometrics marker in the non-volatile memory.

1 13. (previously presented) The portable device as recited in Claim 7 wherein the
2 microprocessor is configured to direct the biometrics-based authentication module to capture
3 and store the first biometrics marker provided that no biometrics marker has been stored in
4 the non-volatile memory.

1 14. (previously presented) The portable device as recited in Claim 7 wherein the
2 microprocessor is configured to enable access to the non-volatile memory upon a
3 determination of authentication success by the biometrics-based authentication module.

1 15. (cancelled)

1 16. (previously presented) The portable device as recited in Claim 7 wherein the
2 microprocessor is configured to provide a bypass mechanism for authentication upon a
3 determination of authentication failure by the biometrics-based authentication module.

1 17. (previously presented) A biometrics-based authentication method
2 implemented using a portable device, the method comprising the steps of:

3 (a) obtaining a first biometrics marker from a user with a biometrics sensor
4 installed on the portable device;

5 (b) retrieving a registered biometrics marker from a non-volatile memory of the
6 portable device, the registered biometrics marker having been stored therein during a
7 registration process;

8 (c) comparing the first biometrics marker against the registered biometrics
9 marker;

10 (d) denying the user access to the non-volatile memory provided that a match is
11 not identified in said step (c); and

12 (e) signaling an authentication success provided that a match is identified in said
13 step (c).

1 18. (previously presented) The biometrics-based authentication method as recited
2 in Claim 17 wherein the registered biometrics marker is a fingerprint.

1 19. (previously presented) The biometrics-based authentication method as recited
2 in Claim 17 wherein the registered biometrics marker is stored in an encrypted format.

1 20. (previously presented) The biometrics-based authentication method as recited
2 in Claim 17 wherein said step (d) comprises granting the user access to the non-volatile
3 memory.

1 21. (cancelled).

1 22. (previously presented) The biometrics-based authentication method as recited
2 in Claim 17 further comprising the step of providing the user with a bypass authentication
3 procedure provided that a match is not identified in said step (c).

1 23. (previously presented) A unitary portable data storage device having
2 biometrics capability which can be directly plugged into a universal serial bus (USB) socket
3 of a host computer, the device comprising:

4 a housing;

5 a fingerprint module, at least a portion of which is housed within the housing, the
6 fingerprint module including a sensor disposed on an exterior surface of the housing;

7 a memory including non-volatile memory, the memory housed within the housing and
8 coupled to the fingerprint module and is configured to store at least one fingerprint template
9 as well as user data;

10 a memory controller housed within the housing and coupled to the memory, the
11 memory controller controlling access to the memory;

12 a USB plug integrated into the housing without an intervening cable and capable of
13 coupling the unitary portable data storage device directly to a USB socket on a host
14 computer; and

15 a USB device controller housed within the housing, the USB device controller
16 enabling the unitary portable data storage device to communicate with the host computer via
17 the USB protocol;

18 wherein the fingerprint module is configured to (1) receive a fingerprint sample from
19 a user placing a finger on the sensor; (2) compare the fingerprint sample with said at least one
20 fingerprint template; and (3) reject a request from the user to access the user data stored in the
21 memory provided that the comparison in said step (2) results in no match.

1 24. (previously presented) The unitary portable data storage device as recited in
2 Claim 23 wherein at least a portion of the USB plug protrudes from the housing to facilitate
3 direct coupling of the unitary portable data storage device to the USB socket of a computer.